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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,866	08/29/2001	Kazuyuki Hayashi	1417-360	5095

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NIXON & VANDERHYE P.C.  
8th Floor  
1100 North Glebe Road  
Arlington, VA 22201

EXAMINER

WYROZEBSKI LEE, KATARZYNA I

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 01/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

### Application No.

09/940,866

### Applicant(s)

HAYASHI ET AL.

### Examiner

Katarzyna Wyrozebski Lee

### Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-55 and 58-60 is/are rejected.
- 7) ☒ Claim(s) 56 and 57 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 2, 4-6, 12-14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 19-22 of U.S. Patent No. 6,623,557.

Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

US Patent '557 discloses composite particles comprising white inorganic particle core, gluing agent deposited on the surface of the core particle and organic pigment further deposited onto the gluing agent layer. The composite particle of '557 has diameter of 0.001-0.01 microns and organic pigment is utilized in amount of 1-500 parts by weight of core particles.

Gluing agent is organosilicon compound or coupling agent. The composite particle of '557 can further contain layer comprising alumina, silica, aluminum hydroxide or silicon hydroxide deposited between the gluing agent and core particle.

In the light of the above disclosure, one of ordinary skill in the art, when practicing the present invention, would arrive at the particles of '557.

3. Claims 1-6, 8-14, 16-21, 23-25, 44-46, 48-51, 54-59 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,596,071. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

Claims of '071 disclose paint composition and rubber composition comprising composite particles. The diameter of the particles utilized in '071 is 0.01-10 microns.

The particles comprise white inorganic core particle, gluing agent and organic coating material. The gluing material is selected from organosilanes and polysiloxanes.

The particle of '071 can also contain additional coat between gluing agent and core particles, which are selected from alumina, silica, aluminum hydroxide and silicon hydroxide in amount of 1-200 pbw of the core particles. The particle of '71 has BET of 1-100 m<sup>2</sup>/g and light resistance of no more than 3.5.

In the light of the above disclosure, it would have been obvious to one having ordinary skill in the art at the time of the instant invention that when practicing the pending claims one would arrive at particles of -071.

4. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 11 of copending Application No. 10/131,501. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

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Co-pending application '501 discloses colorant particles having diameter of 0.005-0.3 microns comprising core pigment, gluing agent on surface of the core pigment and further organic coat deposited thereon.

Co-pending application '501 discloses particle claimed in the present invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 7-13, 15-20, 22-25, 44, 45, 47-55, 58 are rejected under 35 U.S.C. 102(b) as being anticipated by WINNIK (US 5,378,574).

The prior art of WINNIK discloses particle of silica, which is white particle that is coated with a dye molecule (organic) through silane coupling agent.

Silica of WINNIK has particle size of 10-20 nm (0.001 microns = 1 nm) and BET of 150-380 m<sup>2</sup>/g (col. 7, lines 33-37).

Coupling agents are silane coupling agents containing alkoxy groups, amino groups or both (col. 8, lines 5-17). Coupling agent is utilized in amount of 1-20 wt % by weight of silica.

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Dyes compounds coated onto silane treated silica are organic dyes, examples of which are listed in col. 8, lines 23-64). Dye compound is utilized in amount of 1-30 pbw of silica.

The composition is coloring composition, which further comprises film forming resins such as acrylic resins. The composition comprises 65-98 wt % of silica in aqueous medium.

In the process of WINNIK a dispersion is formed of silica in liquid medium. Silane coupling agent is added and mixed with silica in order to provide surface treated silica (EXAMPLE IV, col. 18). Next pre-treated silica is dispersed again in water with dye compound (example VII, col. 20), wherein dye compound in particular example VII is blue.

In the light of the above disclosure, the prior art of WINNIK anticipates requirements of claims rejected above.

During the search, examiner also found US 4,877,451 and US 5,102,763 both to WINNIK in addition to the prior art cited in the IDS. As the disclosures of these documents are the same, whatever arguments applicants make they would also be the same argument for the prior art of WINNIK applied in paragraph 6 of this office action. Applying of these two references is therefore redundant.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 6, 14, 21, 26-43, 46, 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over WINNIK (US 5,378,574) in view of TUNASHIMA (US 6,126,915).

The discussion of the disclosure of the prior art of WINNIK from paragraph 6 of this office action is incorporated here by reference.

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The difference between the present invention and the disclosure of the prior art of WINNIK is recitation of one more layer before treatment of coupling agent.

With respect to the above difference the prior art of TUNASHIMA discloses process of treating white titanium dioxide. Some of the examples listed in Table I of TUNASHIMA disclose titanium dioxide treated by compounds such as aluminates, silicates before it is treated with coupling agent.

By aluminates the prior art of TUNASHIMA means hydrous alumina among couple other choices (col. 8, line 39).

The filler of TUNASHIMA is treated with additional compounds in order to increase adhesion of titanium dioxide to organic compounds.

In the light of the above disclosure it would have been obvious to one having ordinary skill in the art at the time of the instant invention to treat core particle of WINNIK with additional compounds containing functional group and therefore further increase the adhesion properties of the core particle.

*Allowable Subject Matter*

11. Claims 56, 57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

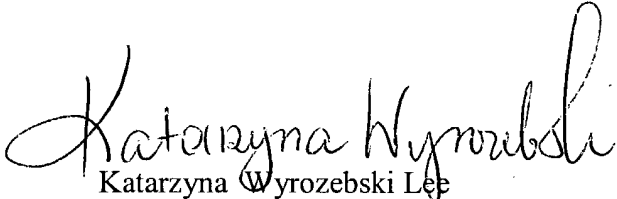
The search conducted did not provide for white filler coated with silane coupling agent and organic pigment in rubber composition.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski Lee whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

  
Katarzyna Wyrozebski Lee  
Primary Examiner  
Art Unit 1714

January 8, 2004